

DETAILED ACTION

Response to Appeal Brief

1. This action is in response to the Appeal Brief filed March 17, 2008. Claims 15-34 are pending. Examiner regrets the untimely reopening of the case and withdraws the previous rejections to further prosecute the claimed invention.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections – 35 USC § 102(b)

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 15 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Bryand (U.S. 3,139,375).

Bryand discloses a suction roll seal strip comprised of a flexible material that is bent for the full width of the strip (column 1, lines 15-35 and column 2, lines 1-11), where the roll may be of any desired length and any desired diameter (column 1, lines 54-61). Because the suction roll seal strip is made of a flexible material that is bent into

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a roll, it can inherently be bent into a reel at any cross section and radius, including a cross-section of 1.9cm by 4.8cm and 150cm radius. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In *re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Mere recitation of a newly-discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art. Additionally, anticipation by a prior art reference does not require that the reference recognize the inherent properties that may be possessed by the prior art reference. See *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 633 (Fed. Cir.) (1987).

In claim 30, the phrases, "for placement in a holder of a stationarily supported suction box in a paper machine" and "the suction roll seal strip for positioning within the holder to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates" are intended uses, which are given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In claim 30, the phrase, "the suction box being connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner

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surface and wherein the suction box has a gap opening against the cylindrical roll" does not offer a positive recitation to the claims, because the vacuum source has been an intended use.

Claim Rejections – 35 USC § 102(b)

5. Claims 15 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Naka (U.S. 5,358,163).

Naka discloses a flexible suction roll seal strip connected with a vacuum suction device (column 1, lines 7-29, 46-52) which is bent and wound around its circumference in one direction (column 2, lines 63-68 and column 4, lines 24-26). Because the suction roll seal strip is made of a flexible material that is bent or wound into a roll, it can inherently be bent into a reel at any cross section and radius, including a cross-section of 1.9cm by 4.8cm and 150cm radius. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Mere recitation of a newly-discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art. Additionally, anticipation by a prior art reference does not require that the reference recognize the inherent properties that may be possessed by the prior art reference. See Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 633 (Fed. Cir.) (1987).

In claim 30, the phrases, “for placement in a holder of a stationarily supported suction box in a paper machine” and “the suction roll seal strip for positioning within the holder to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates” are intended uses, which are given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In claim 30, the phrase, “the suction box being connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner surface and wherein the suction box has a gap opening against the cylindrical roll” does not offer a positive recitation to the claims, because the vacuum source has been an intended use.

Claim Rejections – 35 USC § 102(b)

6. Claims 15 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Tschudin-Mahrer (U.S. 4,401,716).

Tschudin-Mahrer discloses a roll seal strip wound up into a roll (column 1, lines 5-8 and column 2, lines 58-60). Because the roll seal strip is made of a material that is wound into a roll, it can inherently be bent into a reel at any cross section and radius,

including a cross-section of 1.9cm by 4.8cm and 150cm radius. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In *re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Mere recitation of a newly-discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art. Additionally, anticipation by a prior art reference does not require that the reference recognize the inherent properties that may be possessed by the prior art reference. See *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 633 (Fed. Cir.) (1987).

In claim 30, the phrases, "for placement in a holder of a stationarily supported suction box in a paper machine" and "the suction roll seal strip for positioning within the holder to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates" are intended uses, which are given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In claim 30, the phrase, "the suction box being connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner surface and wherein the suction box has a gap opening against the cylindrical roll" does

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not offer a positive recitation to the claims, because the vacuum source has been an intended use.

Claim Rejections – 35 USC § 103(a)

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 16-23, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frawley Jr. (U.S. 5,876,566) in view of Schubart et al (U.S. 3,975,333).

Frawley Jr. discloses a suction roll seal strip comprising a blend of nitrile rubber, graphite and optional additives as desired (column 1, lines 61 through column 2, line 4) where the composition includes about 10-25 wt% nitrile rubber and 25-45 wt% graphite (column 3, lines 18-34 and column 5, lines 46-55) which totals to more than 50% nitrile rubber and graphite.

Although Frawley Jr. discloses the sealing strip can include optional additives, such as a vulcanizing agent, the reference does not explicitly disclose the mixture including wax, as in claims 16 and 30-31. Because Frawley Jr. does not specifically teach the suction roll seal strip comprises wax along with the rubber and graphite, one of ordinary skill in the art would look to the prior art, such as Schubart, to teach an additive such as wax for use within the disclosed rubberized material. Schubart teaches

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a process of vulcanizing rubber, where the mixture may contain wax (column 8, lines 60-61 and column 9, lines 27-30). Frawley Jr. and Schubart are combinable because they are both related to vulcanized rubber with additional additives. It would have been obvious to one of ordinary skill in the art to include wax in the vulcanized rubber mixture of Frawley to achieve the predictable result of improving the sealing properties of the seal strip, as when wax is solidified it can be used as a sealant.

Concerning claim 17, because the suction roll seal strip of the combined references are made of similar materials with a similar weight percentage, it would have been expected from one of ordinary skill in the art for the seal strip of the cited art to be flexible and capable of being bent onto a reel at any cross-section and radius, including a cross-section of 1.9cm by 4.8cm and 150cm radius.

Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 18-19 and 32, Frawley Jr. discloses the vulcanizing agent includes about 1-10 wt%, which the incorporated wax of Schubart is mixed with.

Concerning claims 20 and 22-23, the composition includes about 10-25 wt% nitrile rubber and 25-45 wt% graphite (column 3, lines 18-34 and column 5, lines 46-55) where about 25% is construed as 30% by weight.

Concerning claim 21, Frawley Jr. discloses 1-10 wt% of sulfur (column 3, lines 47-48).

In claim 30, the phrases, “for placement in a holder of a stationarily supported suction box in a paper machine” and “the suction roll seal strip for positioning within the holder to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates” are intended uses, which are given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In claim 30, the phrase, “the suction box being connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner surface and wherein the suction box has a gap opening against the cylindrical roll” does not offer a positive recitation to the claims, because the vacuum source has been an intended use.

Claim Rejections – 35 USC § 103(a)

9. Claims 16-23 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frawley Jr. (U.S. 5,876,566) as evidenced by Selover, Jr. et al (U.S. 4,014,730).

Frawley Jr. discloses a suction roll seal strip comprising a blend of nitrile rubber, graphite and optional additives as desired (column 1, lines 61 through column 2, line 4) where the composition includes about 10-25 wt% nitrile rubber and 25-45 wt% graphite (column 3, lines 18-34 and column 5, lines 46-55) which totals to more than 50% nitrile rubber and graphite.

Although Frawley Jr. discloses the sealing strip can include optional additives, such as a vulcanizing agent, the reference does not explicitly disclose the mixture including wax, as in claims 16 and 30-31. Because Frawley Jr. does not specifically teach the suction roll seal strip comprises wax along with the rubber and graphite, one of ordinary skill in the art would look to the prior art, such as Selover, Jr., to teach an additive such as wax for use within the disclosed graphite-rubber material. Selover, Jr. teaches a graphite rubber composite that is mixed with a vulcanizing agent, such as wax. Frawley Jr. and Selover, Jr. are combinable because they are both related to vulcanized graphite-rubber composites. It would have been obvious to one of ordinary skill in the art to substitute wax for the vulcanizing agent of Frawley because Selover, Jr. teaches waxes are functionally equivalents of vulcanization agents (column 3, lines 1-7).

Concerning claim 17, because the suction roll seal strip of the combined references are made of similar materials with a similar weight percentage, it would have been expected from one of ordinary skill in the art for the seal strip of the cited art to be flexible and capable of being bent onto a reel at any cross-section and radius, including a cross-section of 1.9cm by 4.8cm and 150cm radius.

Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 18-19 and 32, Frawley Jr. discloses the vulcanizing agent includes about 1-10 wt%.

Concerning claims 20 and 22-23, the composition includes about 10-25 wt% nitrile rubber and 25-45 wt% graphite (column 3, lines 18-34 and column 5, lines 46-55) where about 25% is construed as 30% by weight.

Concerning claim 21, Frawley Jr. discloses 1-10 wt% of sulfur (column 3, lines 47-48).

In claim 30, the phrases, "for placement in a holder of a stationarily supported suction box in a paper machine" and "the suction roll seal strip for positioning within the holder to form a seal between the suction box and the inner surface of the cylindrical roll so that the seal strip wipes against the inner surface of the cylindrical roll as it rotates" are intended uses, which are given little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In claim 30, the phrase, "the suction box being connected to a vacuum source, and located inside a perforated cylindrical roll which is mounted for rotation around the suction box, wherein the cylindrical roll has an inner

surface and wherein the suction box has a gap opening against the cylindrical roll" does not offer a positive recitation to the claims, because the vacuum source has been an intended use.

Claim Rejections – 35 USC § 103(a)

10. Claims 24-29 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frawley Jr. (U.S. 5,876,566) in view of Schubart et al (U.S. 3,975,333) further in view of Sale et al (U.S. 6,258,409).

Frawley Jr. and Schubart are relied upon for instant claims 15 and 30. Frawley Jr. and Schubart do not disclose a specific wax material, as cited in claims 24-29 and 33-34. Sale teaches a sealant with a wax comprising ethylene bis-stearamide, which has a melting point of about 110°C to about 180°C (column 1, lines 11-25 and column 4, lines 6-13 and 44-48). Sale further teaches polyethylene waxes (polyolefin waxes) have been used in sealants as well (column 6, lines 30-40). It would have been obvious to one of ordinary skill in the art to have substituted the ethylene bis-stearamide wax, as taught in Sale, for the wax in the sealant mixture of Frawley Jr. and Schubart because the ethylene bis-stearamide wax improves the integrity of the seal.

Claim Rejections – 35 USC § 103(a)

11. Claims 16-21 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frawley Jr. (U.S. 5,876,566) as evidenced by Selover, Jr. et al (U.S. 4,014,730) further in view of Sale et al (U.S. 6,258,409).

Frawley Jr. and Selover, Jr. are relied upon for instant claims 15 and 30. Frawley Jr. and Selover, Jr. do not disclose a specific wax material, as cited in claims 24-29 and 33-34. Sale teaches a sealant with a wax comprising ethylene bis-stearamide, which has a melting point of about 110°C to about 180°C (column 1, lines 11-25 and column 4, lines 6-13 and 44-48). Sale further teaches polyethylene waxes (polyolefin waxes) have been used in sealants as well (column 6, lines 30-40). It would have been obvious to one of ordinary skill in the art to have substituted the ethylene bis-stearamide wax, as taught in Sale, for the wax in the sealant mixture of Frawley Jr. and Selover, Jr. because the ethylene bis-stearamide wax improves the integrity of the seal.

Response to Arguments

12. Applicant's arguments of the rejection made under 35 U.S.C. 103(a) as being unpatentable over Persson et al (U.S. 6,436,241) are moot based on grounds of new rejection.

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The rejection made under 35 U.S.C. 103(a) as being unpatentable over Persson et al (U.S. 6,436,241) in view of Selover, Jr. et al. (U.S. 4,014,730) further in view of Sale et al (U.S. 6,258,409) are moot based on grounds of new rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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